United States Patent

[11] 3,596,629

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[54] **PILL CONTAINER DESIGNATED BY TIME**
24 Claims, 3 Drawing Figs.

[52] **U.S. Cl.** **116/121,** 206/42, 211/76, 220/23.4
[51] **Int. Cl.** **G09f 9/00**
[50] **Field of Search** 116/121; 206/42; 220/23.2, 23.4, 23.8, 23.83, 23.86; 211/71, 74, 76, 126, 163; 312/285

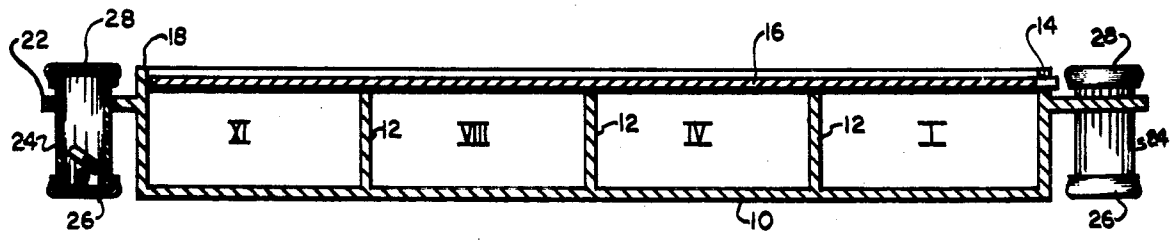
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Primary Examiner—Louis J. Capozi
Attorney—Charles W. Coffee

ABSTRACT: Twenty-nine individual pill bottles or containers are attached to a carrier. The individual containers are grouped, there being one emergency container and a group of four containers for each of the seven days of the week. The containers for each day have caps of a distinctive color, which is correlated to the hour color shown on a simulated clock face upon the carrier.



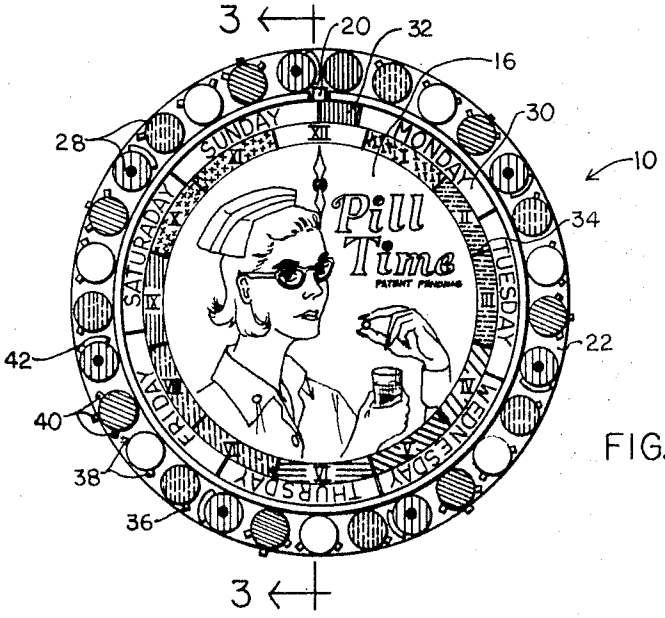


FIG. 1

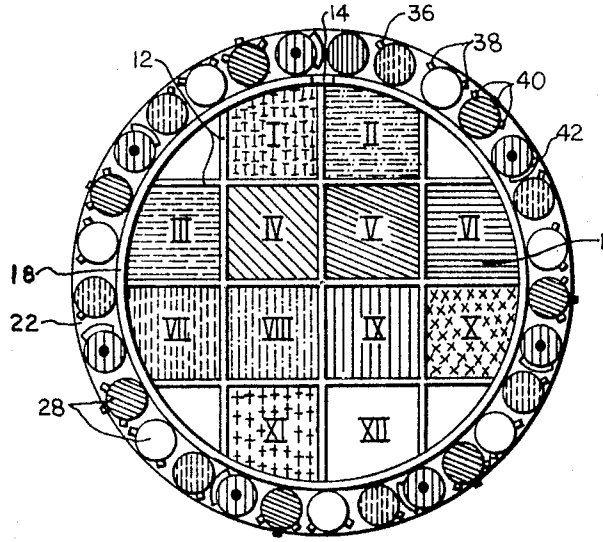


FIG. 2

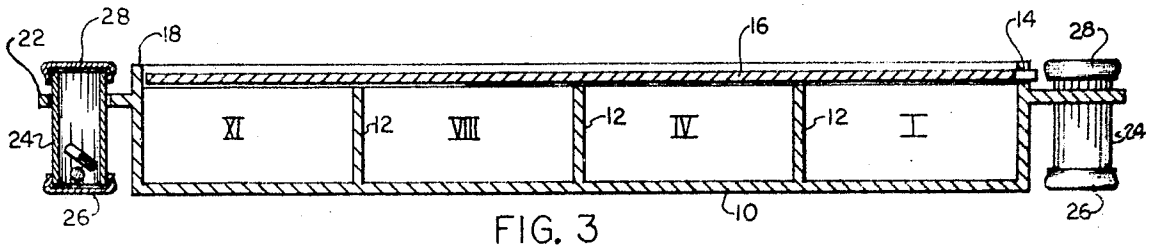


FIG. 3

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PILL CONTAINER DESIGNATED BY TIME

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to supports and racks for a special article and more particularly to a receptacle carrier for a bottle or jar having closure.

2. Description of the Prior Art

People have felt a need for some reminder, or indication, of the times at which to take prescribed medication. When medication is only to be taken by a seriously ill person for two or three days, the novelty and need of the matter is impressive enough that a reminder is not needed. However, when medication is to be taken repeatedly over an extended period of time, as in the field of geriatrics, people have felt a need for a reminder.

The U.S. Pat. to Schaffer No. 692,166, in 1902 is of interest because it indicates that such a need has existed for a long time.

Gayle, U.S. Pat. No. 3,227,127, discloses a device which has one container for each day of the week so that a person can remember to take medication once a day. If for the designated day the container is empty, this would indicate that the medication had been taken for that day.

Bryant, U.S. Pat. No. 3,308,962, discloses a rack or a series of nesting containers, there being seven containers to a set. One container is to be removed each day and the medication taken from that container and then the empty container indexed to another position in the series. Also, there is a disclosure of a plurality of containers for one day only.

Color coding is known procedure and the patent to Cronenwett, U.S. Pat. No. 2,245,964, shows an example of color coding for dairy delivery.

SUMMARY OF THE INVENTION

According to this invention, a container is provided for each time a person takes medication over a period of one week. Often medication is required two, three or four times a day. Medication is seldom prescribed more than four times a day for an extended period of time. Therefore, if four containers per day are provided, in the vast majority of cases, there will be sufficient containers for each dosage of medicine during a week's time.

In using the device according to this invention, the correct dosages are placed in each of the containers, and a person may readily determine at any time whether the dosage for that particular time has or has not been taken. I.e., if the container for that particular hour is empty, it would be assumed that medication for that particular time has been taken; on the other hand, if there is medication in the container, obviously it has not been taken and should be dispensed if it is time therefor. Each of the containers is transparent; therefore, inspection can be made without removing the cap from the container.

As an aid to the person taking medication, the caps on each of the containers are made to indicate the hour of the day. There is a simulated clockface upon the carrier for black containers; each of its hours represented thereon by a distinctive color. E.g., the hour XII is the color white and the container of medication for that hour has a white cap thereon. The container with medication to be taken at 5:00 p.m. has an "aqua" (meaning aquamarine herein) cap, corresponding with the "aqua" numeral V upon the face of the clock. If the medication is to be taken during the night, the cap on the container bears some dark feature. This dark feature might be a darker shade of the same color or it could have a black streak or dot thereon. Also, each cap is made with some indentation or projection which can be felt with the fingers of the person taking the medication; therefore, a person with failing eyesight has an indication that they are getting the correct container.

In addition to the seven sets of containers, there is a 29th container of emergency medication, e.g., for a cardiac condition. This 29th container provides for emergency pills to be taken in an emergency.

A complete arrangement is composed of 29 containers. Twenty-eight containers, which are in seven groups of four, one group for each day of the week, each group having four containers, and the 29th container for emergency medication. It is necessary to provide 169 caps: one cap for the emergency container and 14 caps for each hour on the clockface; seven light colored caps for containers of pills to be taken during the daytime hours, and seven dark colored caps for containers of pills to be taken during the nighttime hours. There are 12 bins provided on the carrier, one bin for each hour on the clockface. Using the example above, there would be seven white caps and seven white caps with a black dot thereon in the bin for the hour XII. There would be another bin for the hour V and would normally contain seven aqua caps and seven aqua caps with a black dot thereon. A person using the device would set it up according to his own medication schedule. If he were to take medicine at 12:00 o'clock and again at 5:00 o'clock, he would take seven of the white caps and place one cap on each of the containers for each day of the week, and he would take seven of the aqua caps and put one cap on each of the containers for each day of the week.

I have found it desirable to have the containers in the form of tubes, having a colored cap on the top and a removable closure on the bottom; therefore, it is not necessary to turn the entire carrier upside down to remove medication from a container. By removing the bottom closure the medication drops into the hand of the person dispensing the medication.

An object of this invention is to dispense medication at a designated time and in the same act of dispensing, indicating the medication for that time has been taken.

Further objects are to achieve the above with a device that is sturdy, compact, durable, simple, safe, versatile, lightweight, efficient, and reliable, yet inexpensive and easy to manufacture, operate, and maintain.

Other objects are to achieve the above with a method that is safe, rapid, efficient, and inexpensive, and does not require skilled people to adjust, operate, and maintain.

The specific nature of the invention as well as other objects, uses, and advantages thereof, will clearly appear from the following description and from the accompanying drawing, the different views of which are not necessarily to the same scale.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a top elevational view of a device according to this invention, with different colors shown in the standard code therefor.

FIG. 2 is a top elevational view with the cover removed to show the 12 bins, without the additional bottle caps in the bins.

FIG. 3 is a cross-sectional view taken substantially on line 3–3 of FIG. 1, showing details of construction, without the additional bottle caps in the bins.

DESCRIPTION OF THE PREFERRED EMBODIMENT

According to this invention, the basic holder or magazine for the individual containers includes a disc pan-shaped carrier **10**. This basic carrier **10** is divided by internal partitions **12** into 12 separate bins identified by Roman numerals I through XII; therefore, each bin corresponding to one of the 12 hours of the day. The carrier **10** along the top outer edge of its rim **18** contains notch **14**. Cover **16** fits within the outer rim **18** of the carrier **10** and the cover **16** has a tit **20**, which fits within the notch **14** so that the cover fits in one position only upon the carrier **10**.

Flange **22** is coaxial with the carrier **10** and is attached to the rim **18** and extends to the outside of the rim **18**. The flange **22** has 29 holes there through. A transparent tube **24** fits within each of the holes in the flange **22**.

The tubes **24** have a shorter length than the depth of rim **18**. There is a bottom closure or cap **26** on each of the tubes **24**. There is also a top closure or cap **28** upon each of the tubes **24**. Thus, there have been provided 29 containers or pill bottles around the circumference of the carrier **10** and each of

the small containers in the form of the tubes **24** can be opened from the top or the bottom.

The cover **16** has seven segmental spaces **30**, each space adjacent four of the tubes **24**. The names of the seven days of the week are written on the spaces **30**. Space **32**, which designates the 29th tube, is an emergency designation. The segmental spaces **30** surround a circle divided into 12 segments **34**, designating the hour of the day. As may be seen, each of the segments **34**, in addition to having the hour noted thereon in Roman numerals, also has a distinctive color. The color designated for each hour is arbitrary, but once the color designation for the hour is established, it is carried throughout. I.e., after the hour XII is designated by the color white, XII carriers this designation throughout, and after the hour VI is designated by the color blue, this color throughout identified the hour VI.

Each cap **28** is dyed a color. In addition to the color of the caps, each cap has a distinctive feature on it which can be felt with the fingers. For the purpose of illustration, each of the violet caps **28** representing hour VII is shown with a single tab **36** projecting from it so that it can be identified by touch. Each of the white caps representing hour XII has two tabs **38** thereon. The aqua caps **28** representing hour V have three tabs **40** thereon. The caps **28**, pink with the black dot thereon, representing hour XI at night, have one long tab **40** thereon.

To use this magazine, any particular pill which would be used for an emergency is put in the 29th tube which has a red cap indicating "emergency" and is at the emergency space **32**. The other pills are distributed according to their time of day. Specifically, if two of a certain type pill are to be taken at 7:00 o'clock each morning, two of the pills are placed into a tube and a violet cap **28**, selected from the bin with Roman numeral VII, placed thereon. Two of that certain pill are placed in corresponding tubes for the same time of each day of the week, capping each tube with a violet cap **28**. If a pill and capsule are to be taken at 12:00 o'clock noon each day, the medication is placed in a tube for each day of the week and a white cap **28** selected from the bin with the Roman numeral XII placed thereon. If one capsule is to be taken at 5:00 o'clock each evening, one capsule would be placed in a tube for each day of the week and an aqua cap **28**, selected from bin V, placed thereon. If another tablet was to be taken at 9:00 o'clock each evening, one of the tablets would be placed in a tube **24** for each day of the week and pink caps, each with a black dot indicating night hours, would be selected from bin IX, and a cap placed over the top of each of these tubes.

Therefore, at about 6:00 o'clock Wednesday afternoon if a person could not remember whether he had taken his medication for Wednesday at 5:00 p.m., he could quickly look through the transparent tube **24** for Wednesday. If there were still medication in the tube with the aqua cap **28**, he would know that he had not taken his capsule for 5:00 o'clock and would proceed to taken his medication for that time. If the tube with the aqua cap for Wednesday 5:00 o'clock were empty, he would know that he had taken the medication inasmuch as the tube for that time was empty. Also, the aqua cap **28** has three tabs, indicating to him by touch that he was taking the correct medication even though his vision might be blurred or dimmed.

The embodiment shown and described above is only exemplary. I do not claim to have invented all the parts, elements or steps described. Various modifications can be made in the construction, material, arrangement, and operation, and still be within the scope of my invention. The limits of the invention and the bounds of the patent protection are measured by and defined in the following claims. The restrictive description and drawing of the specific example above do not point out what an infringement of this patent would be, but are to enable the reader to make and use the invention.

I claim as my invention:

1. A magazine for pills comprising:

a. a carrier,

b. a plurality of containers carried by the carrier,

c. seven sets of containers grouped from said plurality of containers,

d. each set designated by a day of the week,

e. each set having at least two containers,

f. each container within a set having a portion of the container with a distinctive color.

2. The invention as defined in claim **1** with the additional limitations of

g. there being four containers in each set.

3. The invention as defined in claim **1** with the additional limitations of

g. there being at least one container carried by the carrier designated an emergency container for special pills,

h. said emergency container in addition to those containers grouped in seven sets.

4. The invention as defined in claim **3** with the additional limitations of

j. there being four containers in each set.

5. The invention as defined in claim **1** with the additional limitations of

g. each container having a cap,

h. said cap being said portion of the container having a distinctive color.

6. The invention as defined in claim **5** with the additional limitations of

j. there being at least one container carried by the carrier designated an emergency container for special pills,

k. said emergency container in addition to those containers grouped in seven sets.

7. The invention as defined in claim **5** with the additional limitations of

j. there being four containers in each set.

8. The invention as defined in claim **1** with the additional limitations of

g. a clockface on the carrier having hour designations,

h. each hour designation on the clockface a distinctive color,

j. said portion of the container which is a distinctive color correlated to one of the distinctive hour designation colors.

9. The invention as defined in claim **8** with the additional limitations of

k. said carrier having 12 bins,

m. container caps in each bin,

n. said container caps in any one bin correlated to one of the distinctive hour-designated colors.

10. The invention as defined in claim **8** with the additional limitations of

k. each container being transparent.

11. The invention as defined in claim **1** with the additional limitations of

g. each container within a set having a portion of the container with a distinctive shape so that the containers within a set may be distinguished by touch as well as by sight.

12. The invention as defined in claim **1** with the additional limitations of

g. the distinctive colors of each set being such that each set is like every other set.

13. The invention as defined in claim **12** with the additional limitations of

h. a clockface on the carrier having hour designations,

j. each hour designation on the clockface distinctive distinctive color,

k. said portion of the container which is a distinctive color correlated to one of the distinctive hour designation colors.

14. The invention as defined in claim **13** with the additional limitations of

m. said carrier having 12 bins,

n. container caps in each bin,

o. said container caps in any one bin correlated to the distinctive hour-designated color.

15. The invention as defined in claim 13 with the additional limitations of

m. each container within a set having a portion of the container with a distinctive shape so that the containers within a set may be distinguished by touch as well as by sight.

16. The invention as defined in claim 13 with the additional limitations of

m. each container having

i. a cap and

ii. a removable bottom closure

n. so that

i. the cap may be removed and pills added from the top and

ii. the bottom removed and pills dispensed from the bottom.

17. The invention as defined in claim 13 with the additional limitations of

e. each container being transparent.

18. The invention as defined in claim 13 with the additional limitations of

m. there being four containers in each set.

19. The invention as defined in claim 13 with the additional limitations of

m. each container having a cap,

n. said cap being said portion of the container having a distinctive color.

20. The invention as defined in claim 19 with the additional limitations of

o. there being four containers in each set.

21. The invention as defined in claim 13 with the additional limitations of

m. there being at least one container carried by the carrier designated an emergency container for special pills,

n. said emergency container in addition to those containers grouped in seven sets.

22. The invention as defined in claim 21 with the additional limitations of

o. each container having a cap,

p. said cap being said portion of the container having a distinctive color.

23. The invention as defined in claim 21 with the additional limitations of

o. there being four containers in each set.

24. The invention as defined in claim 23 with the additional limitations of

p. each container having cap,

q. said cap being said portion of the container having a distinctive color.